

WHAT IS CLAIMED IS:

1. A mobile network agent to allow a mobile device to connect with home network of said mobile device through a foreign network, wherein said home network and said forging network are connectable to each other, comprising:

5       a mobile device identification module to grasp authentication information transmitted between said mobile device and said home network system to obtain identification information of said mobile device;

          an information packet transmission module to receive and to transmit information packets that said mobile device receives and transmits, respectively, through said  
10   foreign network;

          a mobile network agent connection module to establish a communication channel between said mobile network agent and another mobile network agent;

          a handoff processing module to obtain address information of the mobile device as registered with a foreign network previously connected with said mobile device  
15   and to send a renew information to said previously connected foreign network, when said mobile device requests to log in; and

          an IP collision resolution module to separate information packets to and from mobile devices that are connected to said mobile network agent and have identical IP address or account identity or information flow to and from a mobile device that is  
20   connected to said mobile network agent and has an IP address or account identity identical with that of another mobile device or computer equipment.

2. The mobile network agent according to claim 1 wherein said mobile device identification module is actuated when said mobile device requests to connect with

said mobile network agent.

3. The mobile network agent according to claim 1 wherein said mobile device identification module identifies identification of said mobile device when said mobile device establishes connection with the VPN server of said home network.

5 4. The mobile network agent according to claim 1 wherein said mobile device identification module obtain identification information of said mobile device by requesting said identification information to home network of said mobile device.

5. The mobile network agent according to claim 1 wherein said information packets are transmitted between said mobile network agent and another mobile network agent  
10 provided in said home network.

6. The mobile network agent according to claim 5 wherein information packets transmitted between said mobile network agent and said other mobile network agent through a mobile IP tunnel.

7. The mobile network agent according to claim 1 wherein said handoff processing  
15 module is actuated by the DHCP request or DHCP discover signal of said mobile device.

8. The mobile network agent according to claim 7 wherein said handoff processing module transmits said DHCP request or DHCP discover signal to a network system that is in connection with said mobile device to renew IP authorization given to said  
20 mobile device by said network system.

9. The mobile network agent according to claim 1 wherein said IP collision resolution module generates different identification codes and attaches said codes to to and from different mobile devices with identical IP or mobile device and other

computer equipments with identical IP to separate information flows.

10. The mobile network agent according to claim 9 wherein said identification code is a VLAN (virtual local area network) tag.

11. The mobile network agent according to claim 9 wherein said identification code is  
5 added to information packets generated by said mobile device.

12. The mobile network agent according to claim 1 wherein said identification code is added to information packets designated to said mobile device.

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